

```

GTGACTGCTATCACCTTGGCGGTCTCTTGTGAAAGGAATAATTACTCTAGTGTCTGACT
1  -----+-----+-----+-----+-----+-----+ 60
    M T A I T L G G L L L K G I I T L V S T
CACACATCTTCAACGCTTCCAGCATTCAAAAAGATCTTGGTAGCAAACCGCGGCGAAATC
61  -----+-----+-----+-----+-----+-----+ 120
    H T S S T L P A F K K I L V A N R G E I
GCGGTCCGTGCTTTCCGTGCAGCACTCGAAACCGGTGCAGCCACGGTAGCTATTTACCCC
121 -----+-----+-----+-----+-----+-----+ 180
    A V R A F R A A L E T G A A T V A I Y P
CGTGAAGATCGGGGATCATTCCACCGCTCTTTTGCTTCTGAAGCTGTCCGCATTGGTACT
181 -----+-----+-----+-----+-----+-----+ 240
    R E D R G S F H R S F A S E A V R I G T
GAAGGCTCACCAAGTCAAGGCGTACCTGGACATCGATGAAATTATCGGTGCAGCTAAAAAA
241 -----+-----+-----+-----+-----+-----+ 300
    E G S P V K A Y L D I D E I I G A A K K
GTTAAAGCAGATGCTATTTACCCGGGATATGGCTTCCTGTCTGAAAATGCCAGCTTGCC
301 -----+-----+-----+-----+-----+-----+ 360
    V K A D A I Y P G Y G F L S E N A Q L A
CGCGAGTGC GCGGAAAACGGCATTACTTTTATTGGCCCAACCCAGAGGTTCTTGATCTC
361 -----+-----+-----+-----+-----+-----+ 420
    R E C A E N G I T F I G P T P E V L D L
ACCGGTGATAAGTCTCGTGCGGTAACCGCCGCGAAGAAGGCTGGTCTGCCAGTTTGGCG
421 -----+-----+-----+-----+-----+-----+ 480
    T G D K S R A V T A A K K A G L P V L A
GAATCCACCCCGAGCAAAAACATCGATGACATCGTTAAAAGCGCTGAAGGCCAGACTTAC
481 -----+-----+-----+-----+-----+-----+ 540
    E S T P S K N I D D I V K S A E G Q T Y
CCCATCTTTGTAAAGGCAGTTGCCGGTGGTGGCGACGCGGTATGCGCTTTGTTTCTTCA
541 -----+-----+-----+-----+-----+-----+ 600
    P I F V K A V A G G G G R G M R F V S S
CCTGATGAGCTCCGCAAATTGGCAACAGAAGCATCTCGTGAAGCTGAAGCGGCATTCCGC
601 -----+-----+-----+-----+-----+-----+ 660
    P D E L R K L A T E A S R E A E A A F G
GACGGTTCCGTATATGTGCAACGTGCTGTGATTAACCCCCAGCACATTGAAGTGCAGATC
661 -----+-----+-----+-----+-----+-----+ 720
    D G S V Y V E R A V I N P Q H I E V Q I

```

FIG. 1A

```

CTTGGCGATCGCACTGGAGAAGTTGTACACCTTTATGAACGTGACTGCTCACTGCAGCGT
721 -----+-----+-----+-----+-----+-----+ 780
      L G D R T G E V V H L Y E R D C S L Q R
CGTCACCAAAAAGTTGTGCGAAATTGCGCCAGCACAGCATTGGATCCAGAACTGCGTGAT
781 -----+-----+-----+-----+-----+-----+ 840
      R H Q K V V E I A P A Q H L D P E L R D
CGCATTGTGTCGGATGCAGTAAAGTTCTGCCGCTCCATTGGTTACCAGGGCGCGGGAACC
841 -----+-----+-----+-----+-----+-----+ 900
      R I C A D A V K F C R S I G Y Q G A G T
GTGGAATTCTTGGTCGATGAAAAGGGCAACCACGTTTTCATCGAAATGAACCCACGTATC
901 -----+-----+-----+-----+-----+-----+ 960
      V E F L V D E K G N H V F I E M N P R I
CAGGTTGAGCACACCGTGACTGAAGAAGTCACCGAGGTGGACCTGGTGAAGGCGCAGATG
961 -----+-----+-----+-----+-----+-----+ 1020
      Q V E H T V T E E V T E V D L V K A Q M
CGCTTGGCTGCTGGTGCAACCTTGAAGGAATTGGGTCTGACCCAAGATAAGATCAAGACC
1021 -----+-----+-----+-----+-----+-----+ 1080
      R L A A G A T L K E L G L T Q D K I K T
CACGGTGCAGCACTGCAGTGCCGCATCACCACGGAAGATCCAAACAACGGCTTCCGCCCA
1081 -----+-----+-----+-----+-----+-----+ 1140
      H G A A L Q C R I T T E D P N N G F R P
GATACCGGAACTATCACCGCGTACCGCTCACCAGGCGGAGCTGGCGTTTCGTCTTGACGGT
1141 -----+-----+-----+-----+-----+-----+ 1200
      D T G T I T A Y R S P G G A G V R L D G
GCAGCTCAGCTCGGTGGCGAAATCACCGCACACTTTGACTCCATGCTGGTGAAAATGACC
1201 -----+-----+-----+-----+-----+-----+ 1260
      A A Q L G G E I T A H F D S M L V K M T
TGCCGTGGTTCCGACTTTGAAACTGCTGTTGCTCGTGACAGCGCGCTTGGCTGAGTTC
1261 -----+-----+-----+-----+-----+-----+ 1320
      C R G S D F E T A V A R A Q R A L A E F
ACCGTGTCTGGTGTGCAACCAACATTGGTTTCTTGCGTGCGTTGCTGCGGGAAGAGGAC
1321 -----+-----+-----+-----+-----+-----+ 1380
      T V S G V A T N I G F L R A L L R E E D
TTCACTTCCAAGCGCATCGCCACCGGATTTATCGGCGATCACCCACACCTCCTTCAGGCT
1381 -----+-----+-----+-----+-----+-----+ 1440
      F T S K R I A T G F I G D H P H L L Q A

```

FIG. 1B

```

1441 CCACCTGCGGATGATGAGCAGGGACGCATCCTGGATTACTTGGCAGATGTCACCGTGAAC
-----+-----+-----+-----+-----+-----+ 1500
      P P A D D E Q G R I L D Y L A D V T V N
1501 AAGCCTCATGGTGTGCGTCCAAAGGATGTTGCAGCACCAATCGATAAGCTGCCCCAACATC
-----+-----+-----+-----+-----+-----+ 1560
      K P H G V R P K D V A A P I D K L P N I
1561 AAGGATCTGCCACTGCCACGCGGTTCCCGTGACCGCCTGAAGCAGCTTGGCCCAGCCGCG
-----+-----+-----+-----+-----+-----+ 1620
      K D L P L P R G S R D R L K Q L G P A A
1621 TTTGCTCGTGATCTCCGTGAGCAGGACGCACTGGCAGTTACTGATACCACCTTCCGCGAT
-----+-----+-----+-----+-----+-----+ 1680
      F A R D L R E Q D A L A V T D T T F R D
1681 GCACACCAGTCTTTGCTTGGGACCCGAGTCCGCTCATTCGCACTGAAGCCTGCGGCAGAG
-----+-----+-----+-----+-----+-----+ 1740
      A H Q S L L A T R V R S F A L K P A A E
1741 GCCGTCGCAAAGCTGACTCCTGAGCTTTTGTCCGTGGAGGCCTGGGGCGGCGCGACCTAC
-----+-----+-----+-----+-----+-----+ 1800
      A V A K L T P E L L S V E A W G G A T Y
1801 GATGTGGCGATGCGTTTCCTCTTTGAGGATCCGTGGGACAGGCTCGACGAGCTGCGCGAG
-----+-----+-----+-----+-----+-----+ 1860
      D V A M R F L F E D P W D R L D E L R E
1861 GCGATGCCGAATGTAAACATTCAGATGCTGCTTCGCGGCCGCAACACCGTGGGATAACCC
-----+-----+-----+-----+-----+-----+ 1920
      A M P N V N I Q M L L R G R N T V G Y T
1921 CCGTACCCAGACTCCGTCTGCGCGCGGTTTGTAAAGGAAGCTGCCAGCTCCGGCGTGGAC
-----+-----+-----+-----+-----+-----+ 1980
      P Y P D S V C R A F V K E A A S S G V D
1981 ATCTTCCGCATCTTCGACGCGCTTAACGACGCTCTCCCAGATGCGTCCAGCAATCGACGCA
-----+-----+-----+-----+-----+-----+ 2040
      I F R I F D A L N D V S Q M R P A I D A
2041 GTCCTGGAGACCAACACCGCGGTAGCCGAGGTGGCTATGGCTTATTCTGGTGATCTCTCT
-----+-----+-----+-----+-----+-----+ 2100
      V L E T N T A V A E V A M A Y S G D L S
2101 GATCCAAATGAAAAGCTCTACACCCTGGATTACTACCTAAAGATGGCAGAGGAGATCGTC
-----+-----+-----+-----+-----+-----+ 2160
      D P N E K L Y T L D Y Y L K M A E E I V
2161 AAGTCTGGCGCTCACATTCTGGCCATTAAGGATATGGCTGGTCTGCTTCGCCCAGCTGCG
-----+-----+-----+-----+-----+-----+ 2220
      K S G A H I L A I K D M A G L L R P A A

```

FIG. 1C